



Stillbirth Matters Podcast * Recorded January 17, 2022
Guest: Alexander Kofinas, MD

Announcer (00:15): You are listening to the Stillbirth Matters podcast presented by the Star Legacy Foundation, a national nonprofit founded on the belief that every pregnancy deserves a happy ending. Visit us online@starlegacyfoundation.org.

Lindsey Wimmer (00:35):

Hello and welcome to this episode of stillbirth matters. My name is Lindsay Wimmer. I'm the Executive Director of Star Legacy Foundation, and we are here today with a very special guest. It's my pleasure to introduce Dr. Alexander Kofinas. He is the founder and director of Kofinas Perinatal in New York. He's a researcher, associate professor at Cornell, and he's also the author of a fantastic book called the *Working Womb*. So it's my pleasure to have him here with us today. Welcome Dr. Kofinas!

Dr. Kofinas (01:04):

Thank you Lindsey, and thank you for having me on the show.

Lindsey Wimmer (01:08):

So tell us a little bit about your background and how you kind of came into your approach to pregnancy care.

Dr. Kofinas (01:16):

You know, it goes back to 1974. I was a fourth year medical student in Athens, and I noticed that my placenta book had only about half a page. I mean, the obstetrics textbook had only half a page about the placenta out of 350 pages at the time. And that didn't make any sense, but then, you know, it just went into the background of my brain. And when I came to the states in 1974 as a research fellow at the university of San Francisco, I did physiology and worked with a PhD in growing embryos ex vivo in the petri dish almost until the heart was able to start beating. And I got an interest in this whole process of embryo and fetal development and so forth. Now when I finished my specialty, my training in Athens and I came to the United States to do my residency.

Dr. Kofinas (02:24):

I decided to go to obstetrics, although I had an inclination to do surgery in general. And again I dived into the placenta knowledge, which was not much, and that was again strange. So it really stimulated me to devote more time and more energy to try to understand this organ it is, you know, with sadness that today's 2021. And I'm talking about now 1981, 40 years ago. Yeah, 40 years ago that nothing much has changed. I mean, as far as the obstetricians and knowing about and understanding the placenta, nothing has changed. Now, there has been a lot of knowledge, a lot of known clinicians, non-obstetricians, mostly laboratory people experiment with animals. They have made great progress in helping us understand the physiology of the placenta and what can lead to a deranged function. And therefore, although these animal studies, they can still give us insights into the human placenta, at least studies from monkeys and sheep and mice.

Dr. Kofinas (03:45):



Nevertheless, there's been substantial progress since the ultrasound real time ultrasound became available in 1987. And this is when really my interest was amazingly stimulated to devote more, even more time on the subject, cause I was able to see the placenta live typically before then. And even now for more obstetricians, the placenta is only seen as a dead organ to be discarded and they know placenta pathology from pathological specimens of babies that have been in trouble or have died. And it is again after 40 years, if you look at any ultrasound and I challenge you to find ultrasounds reports from all over the country and look at the placenta section, there's always a section, there's a field in the ultrasound report by the placenta. And the only thing that you might see if any, is the location of the placenta or a statement like no previa and towards the end of the pregnancy, they may, you know, classified as stage 1, 2, 3 in terms of classifications, which 99%, this kind of classification are in normal all age in process with the placenta.

Dr. Kofinas (05:05):

So it is absolutely stunning to me that still the placenta is so badly neglected and it took 35 years for the NIH until 2015 where they realized, okay, this, this organism neglected, let spend some millions of dollars to help obstetricians understand it is important. And they created a human person, a project. So all these years you know, I felt that I'm, I'm fighting alone looking for something that nobody cares about. And as recently as a few weeks ago, one of my patients who went to one of the prestigious institutions in New York City for the first visit with the OB and he found out that he was treated by the protocol we use, he questioned here, why are you in all these medications? And the patient said, well Dr. Kofinas is treating my placenta because I have these problems and he tries to prevent the complications. And he says to her, well, the placenta doesn't even exist yet at twelve weeks. This kind of ignorance is really totally incomprehensible to me, but that's the state of the knowledge of the obstetrical community today. And that reflects the majority, I believe, based on my experiences.

Lindsey Wimmer (06:38):

So, wow. That's an incredible story.

Dr. Kofinas (06:40):

Exactly. That that's how it has been going on. And I hope with this book of mine which is of course primarily targeting the general public, the general population that has finished a few grades of education and schooling, but it is absolutely scientific and absolutely valuable to any obstetrician who wants to learn something to understand those simple terms and then expand his or her knowledge by going back to the citations we have and even beyond their expand to additional and learn about this organ, which is always blamed for every melody along with God and with bad luck and with, you know, what happens instead of looking at it, open it up, read it because the placenta is like an archeological site. If you ever, I watched a documentary of an archeologist digging through ruins and coming up with stories about how people lived there, how people exchange money, exchange goods, how they bath, how they communicated it is fascinating. The placenta is, is it provides all of this stuff to us, we just have to look at it.

Lindsey Wimmer (08:05):

That's fascinating. Can you kind of summarize or, or tell us a little bit about how your approach is different from, from other obstetricians? What, what what would someone expect to be kind of part of your, your, or, or standard approach to prenatal care that is not something that they get with other providers?

Dr. Kofinas (08:29):

Yeah, I mean the most fundamental thing Lindsey, is that I do recognize that the placenta is more important or at least as equally important as the baby and that the placenta starts developing in synchrony with the baby. The baby in the



placenta are one unit known as blastocyst. And when this blastocyst comes into the uterine cavity to implant and initiate the pregnancy and the presentation process, it is this part that it develops first. The baby is far behind in development to the point that the placenta is completely developed by 24 weeks of gestation and the baby takes another 16 weeks. Now, the placenta has developed the capacity in 24 weeks ahead of time to get the baby to 40 weeks and fully developed according to his or her genetic code. Every baby has instructions in his genetic code that expects the placenta to deliver all the materials for those instructions to be translated into a human being with, you know, functionality with correct, and not on me with intelligence and so forth.

Dr. Kofinas ([09:58](#)):

So the first thing to recognize we have recognized is the placenta is extremely important and it is much more vulnerable than the baby, and it can be crucially damaged in the first 12 weeks. The first trimester, which has zero is discarded as nonsignificant because everybody has this false impression in the mind that a pregnancy loss in the first trimester is usually genetic loss. There's nothing more fundamentally wrong than that. And I can get back to it in more detail, but the first trimester there is what we call the placenta develops into stages. The first trophoblastic invasion and the second trophoblastic invasion, the first one is complete by 12 to 14 weeks in that invasion, the placenta is searching out inside the uterus for the terminal branches of the uterine artery known as spiral arteries. Those arteries are invaded by the placenta and the placenta literally acts as a cancer that approaches new blood vessels, invades them and expands its growth.

Dr. Kofinas ([11:14](#)):

That's the placenta that invasion digests completely the muscular layer of the blood vessels of the uterine artery and replaces them with trophoblast cells, which are incapable of constricting. And that's extremely important. The baby at that moment, hijacks the maternal circulation. The mother has no will or capability of strict in those blood vessels and causing the baby to be lost or anything like that. In case that let's say the maternal body has a stress and the mother will survive. If the baby dies, the mother has no capability of doing that. So the baby takes absolute control to the point that if the mother dies just by gravity alone, the placenta will receive blood and oxygen for about five minutes. And for another five minutes, the baby tends on an metabolism. So a, in a case of maternal death, we have about 10 minutes to deliver the baby.

Dr. Kofinas ([12:17](#)):

And still that baby be a safe and healthy baby, assuming nothing happened before. So that first invasion is the foundation. It's like time to build a high riser and you dig down whatever, you know, 50, 60 meters to put the foundation in. If that foundation is not strong, if the materials we use are not the expected by code, then the whole building is going to come down. Like, you know, the building in, in Florida that collapsed in Miami beach, right? You might have hit out in the news. So that first part, nobody looks at the placenta. Well, nobody looks at the placenta anytime anyway, but those first 12 weeks, many times the patients don't even make it to the obstetrician. The first appointment might be at 11, 12, 13 weeks, which is the first time to do a down syndrome test. Now, assuming that all losses in the first trimester, most of the losses are genetic is a huge and almost criminal fallacy because when somebody, any woman loses a baby in the first trimester, there's a 50, 50 chance to CHSO abnormal.

Dr. Kofinas ([13:34](#)):

So the other, the 50% is totally discarded. Nobody talks about it anymore, but if you lose a second baby, that number goes about 60, 70% normal babies. And by the third loss, it is almost 95% of the losses in repetitive losses are genetically normal babies. Nobody talks about it right now. I, I like to bring here the attention to your audience, because most of



your audience, most likely if I understood, well, they have lost the baby. They had a fetal death of a baby that could survive ex utero, right? So if we are 22 plus weeks, 24 weeks, the baby is a surviving baby with assistance in an intensive care unit. Then if a baby is lost at that time, they call it fetal death. If it's a death in Utero, but if the baby is lost before, it's an abortion for me. And all of the 40 years of my experience in looking at these babies, if we pay the proper attention, any baby, even at the stage of blastocyst, especially if it's a genetically normal baby, it is a baby that has a full potential God given to him. And unless we do a job, this baby will not realize it. So a fetal loss for me is a fetal loss, no matter what, 20 weeks, 22 weeks, whatever. But of course it is much more painful. You know, I guess for some people much more painful, if that loss happens at a stage where the baby can survive, and that's why we have divided it arbitrarily into a first trimester abortion, second trimester, abortion, and fetal loss or fetal demise depends how the baby has been lost.

Lindsey Wimmer ([15:27](#)):

No, that's exactly right. We, we hear from families all the time that have had losses it and all types in all stages of pregnancy. And it really just depends on that particular family and, and their kind of that their stage of, of life and, and in their pursuit of, of expanding their family, that determines what this experience means for them. And, and it really should not have any biological or, or time based element to it. So that's, it's really reassuring to have, have your work kind of reinforce and support that.

Dr. Kofinas ([16:05](#)):

You know, one of the things Lindsey that people don't understand, you know, there's an old saying there are lawyers, they are lawyers without any, any pun intended for lawyers and statisticians. Now statistics is a tool that can make somebody who is dishonest to generate anything he or she wants to generate. And I say that because when we statistics in medical journals about, you know, the rate, let's say some countries have a very low rate of fetal demise given that fetal demise is considered only for fetuses that are viable, survivable. And then you look at the details and they, they define as demise only pregnancies beyond 28 weeks. So any baby that is lost before 28 weeks is considered an abortion, right? I think to, to avoid completely this confusion, every baby that does not make it should be classified as a fetal demise, five weeks, six weeks, whatever, as long as we have a baby that we can identify and measure and say, this baby is five and a half weeks, then it should be defined as such.

Dr. Kofinas ([17:21](#)):

And that's what, when I see a patient at five weeks, when the baby still does not exist, but only the Yolk SAC. And I know that next week, the baby will show up. Then from this point on every pregnancy that I lose is counted and we explain why we lost it. So we lose 5% of all clinical so-called pregnancies in a high risk practice. Well that you have to compare with 25% pregnancy loss of similar clinical pregnancies across the board nationwide. And I would say international because the European statistics, at least that I can follow are very similar. So by paying attention to this first trimester, because I can see at five weeks, for example, with the modern ultrasound and Doppler technology, I can see the vessels that the placenta has been invading. The maternal artery is how many are they? I can see if the maternal blood enters the placenta prematurely because maternal blood should not enter the placenta circulation until after 12 weeks, what we call the intravenous space.

Dr. Kofinas ([18:33](#)):

And this is very important. Why? Because the baby's tissues at that stage and up to 12 weeks are habituated to only do well with an oxygen tension of about 30, the maternal blood that enters a placenta is above 70. So such high oxygen content in the maternal blood causes, massive oxidative stress and crosses of the Corona eye. So it damages the



placenta. Well, I can see that yes, 5, 6, 7, 8, 9, 10, 11, 12 weeks, and all the way through, but who looks for this thing? Yes, it is difficult to quantify. It takes tremendous clinical experience, but first you can never understand this thing on the ultrasound, unless you have seen the thousands of placentas. I have seen in my life in pathology reports and pathology laboratories, because every placenta has to be examined. Something that should be a victim, should be a requirement, should be a regulation, whatever you want to call it, there should be no placenta that goes out the labor and delivery room without being examined.

Dr. Kofinas ([19:44](#)):

No matter how well the baby did, because that will give us knowledge about the types of placentas that gives us good babies unaffected, and the types of placentas that give us in a good, well controlled prospective way. And listen to this since 2007 at the institution where my patients were delivering, mostly most of them, not all the chairman then was a person that was smart enough. And, and he listened to my advice also, and he hired a placenta pathologist that was dedicated placenta pathologist. One of the best, we may have three or four in this country. It's a rare species, totally placenta pathologists. They're like forensic scientists. And every placenta was examined 2017. At that time, Cornell university bought my hospital. And one of the first things they did was to fire, this placenta pathologist. And now when we get a placenta from a pregnancy that was problematic, the report typically is, oh, third trimester, placenta, or umbilical with three cord vessels, and membranes appear to be normal. And that's all, that's absolutely all. And it is a most, I don't know, unbelievable thing to be polite

Lindsey Wimmer ([21:16](#)):

Well, and I would have to imagine that that impacts your ability to investigate some of the losses that, that occur. And, and, and to guide any future pregnancies for those families specifically.

Dr. Kofinas ([21:28](#)):

Absolutely. That's a great comment because when the patients come to me and I said, you know, you lost your baby now, did they do a pathology placenta? She says, I don't know. I said what they must have done. I mean, I can't believe that you lost your baby. They delivered you. And they did not send the placenta pathology and many times they patients aware that yes they tested the placenta and I said, what did they tell you? What did they find? They told me everything was fine. I said, okay, get me that placenta pathology. Maybe I can see something between the lines that may not be fine because babies don't die for no reason. I mean, this baby died and the least that he could give us to be the silver bullet, the silver lining is that we can read his placenta and he has left information for us there.

Dr. Kofinas ([22:19](#)):

So we can utilize for the next pregnancy. And when the report comes to me, yes, there's ton of information that, you know, sometimes some placenta, some pathologists who are not placenta, people make an honest effort to do the job and look at the placenta. They build microscopic analysis, they look for inflammation and so forth. And I can see things that tell me exactly how the baby died. And then I explain to the patient, that's why your baby was small. That's why your baby died from this thing and that thing, and that thing, whatever that is. Right. But for anybody to say, oh, we don't really know why your baby died. The placenta was fine. And then on the next breath that MFM would tell the patient, go ahead, get pregnant. Because they think this thing will never happen again to you. I mean, how in God's name, anybody can say to a patient, I, I don't know why your baby died once she should have known, but then she knows the future. I mean, I would say to this patient, please run away from these people. I mean, run as far away as possible. They are dangerous.



Lindsey Wimmer ([23:29](#)):

Have you encountered any challenges either with your, your colleagues, you kind of mentioned with some of the institutions are a little bit more open and to, to your approach or some of the things that, the tools that you need, but are there, there challenges or, or other barriers that you find that that would prevent either you or maybe other providers from making this a, a, just a standard of care

Dr. Kofinas ([23:56](#)):

The biggest the biggest problem Lindsay is the fact that they don't think that placenta is important. I cannot, I, I, I cannot, you know, I haven't limited number of cases to describe to you the attitude that the placenta is, does make any difference. I mean, just, just the other day, one of my ex nurses who now works for Natera, the genetics company, she was visiting a number of family in Queens. And he was dealing with a baby that was growth retarded. And my nurse says to him, what about the placenta? And he says, there's nothing to do with the placenta. Placenta has nothing to do with this. Just the baby is just small. I mean, that baby was growth retarded for God's sake. So this is the biggest challenge. How can I get this people? And frankly, I, I admit I gave up Lindsey.

Dr. Kofinas ([24:48](#)):

That's why my book is not for obstetricians, primarily it's for women, because I found out that these women, if they have the courage and the strength, they can challenge their doctors and push them to get to move on. So that's the first step to get them to understand that the placenta is indeed important. Then they have to learn about the placenta. They have to study histology of the placenta. They have to study the normal physiological function of the placenta. They don't even know what kind of placenta we have. I mean, humans have a hemochorial placenta. Okay. There are different types of placentas. And the hemochorial is the one that the baby literally invades, the maternal circulation, where in sheep, for example, it's not, hemochorial, it's an epitheliochrial placenta, which means that the two circulations of fetus and the mother go in parallel next to each other.

Dr. Kofinas ([25:39](#)):

So the blood vessels are intact. So it's a different physiology. The human percentage is unique in that it's similar to the monkey and close to the mouse. That's why studies for mice is, are more, you know, likely to give us information that we can utilize. So they have to learn about the normal and pathologic placenta. And look at pictures, look at slides, look at microscopic pictures, and then go through the ultrasound and identify such lesions on the ultrasound. They can be trained. Of course I can train. I have attempted to train. I don't know if I said this story before, but I had an MFM who came to me. She wanted to learn stuff with me because she knows what I'm doing. And after one day she gave up because she got overwhelmed, you know, with the mixing of information, the mixing of immunology and blood clotting disorders and imaging, and the techniques we use to run the equipment.

Dr. Kofinas ([26:40](#)):

I mean, every ultrasound machine that is used today in a distant MFM unit has a capabilities to see the placenta at the microscopic level and the placenta circulation and the chorionic villi. And I have published that stuff, you know, on, on my paper on placenta in 2010, they can copy this paper and type it to learn. It took thousands of hours of scanning for me of normal pregnancies to understand what is not normal, because when you know what the normal is, this is the only time you can find what is not normal. And I've been discovering things even up to now, nobody knows everything. And, and I'm sure I have a lot to learn. You have to know what you're looking for. How can you find it otherwise? And that's the biggest challenge. I mean, I don't know, unless something starts from the get go from medical school, but for that to happen, the big wings, they have to understand the value of placenta. But if you look at the ACOG, for example,



he won't find any help. If you look at any institution, only the NIH made a move. And that move seems to be almost dead. That at least I don't see any, I see money flowing into some basic placenta science research, which is good for me, but it's not gonna help the clinical application of the existing knowledge. We have already amazing knowledge we can apply. And we want, because obstetricians seem to not have an interest.

Lindsey Wimmer ([28:19](#)):

Yeah, that's, that's certainly I can, I can hear your frustration. And I think a lot of our families have, have felt similar emotions with, with their with their, through their experiences, with, with loss and, and pregnancy, even infertility and the whole reproductive stresses. So I think, you know, one of the, the goals that we have here at Star Legacy Foundation, and we're really trying to promote for families to be partners in their care. We know that the, the best pregnancy outcomes happen when you have families and providers really listening to each other and working together to, to make sure that no stone is unturned and that we approach every pregnancy as, as in depth as possible. I'm wondering how, how do you work with your, your families that in your practice, do you you know, there are certain elements that, that they would get like, or instructions or things that they would get differently from it, other providers, or, or how do you encourage them to be part of this process?

Dr. Kofinas ([29:30](#)):

Well Lindsey, one of the things that is a travesty in medicine is the term unexplained, whatever that means and explained, let's say unexplained fetal death. It is a very convenient waste basket where me is an obstetrician. If I tell the mother and the family, this was an unexplained death, I have nothing to do anymore. I do not feel guilty because unexplained connotes that nobody knows what happened, which is not true. If you look at the statistics, basically in general, from the epidemiological point of view of the CDC, most of the fetal demises are unexplained, classified as unexplained. Well, of course, most of the fetal demises, nobody even examined the placenta. So how could you explain something? And then, they say set ecological thing with obstetricians. They avoid doing autopsies and placenta pathologists because they think that something might be found that will find them guilty.

Dr. Kofinas ([30:32](#)):

So there's an interesting interplay there, but when you truly have a placenta pathologist understands pathology and an MFM space list who understands the ultrasound, there's no placenta that cannot that there's no fetal demise that cannot be detected. As far as I know, there's no unexplained fetal demise. It takes to another suffer. I have patients who lose their baby at eight weeks. And, you know, the situation found out that it could not see the heartbeat. I said, do you see any, any issues on the baby? He says, no, I don't see any issues. He said, okay, send the patient to me. And at eight weeks with the ultrasound, we have, I can zoom into the baby in high definition, and I can see the baby has perfusion has cardiac effusion has, you know, adidas. This is a tell, tell story of congestive heart failure.

Dr. Kofinas ([31:24](#)):

And if this baby's chromosomes are normal, this baby had a congenital cardiac defect. It failed to connect to the Yok SAC. At the moment, the heart was forming at about seven and a half to eight weeks when the two tubes twist to form the four chambers. So now if you look at some prospective studies that were done pretty much, they have the same. They, they pretty much are close to my experience. It's between 80 and 90% of the cases can be explained again these are basically studies that did not take into, into out a high level targeted ultrasound to look for reasons that could kill the baby other than infection. I mean, infection. If you look at theologists of fetal demise, everybody is doing a culture. They do some basic blood work for infectious CMV, toxic and most and so forth.



Dr. Kofinas (32:25):

And if they find nothing, they call it unexplained. So that unexplained is a major problem because it's convenient to everybody. And then you go to the next pregnancy for the mother, with the anxiety. Well, gee, am I a bad person? Did God not want to have that baby? And what about the next one? And of course, nobody's going to look for anything to the next pregnancy, right? So it's a double one there for the mother, but if I know what happened, any information I can gather from the ultrasound and subsequent pathology, whether it's a DNC or a delivery, then I can look for specific pathologists in the maternal blood system and maternal immune system to identify issues that could be potentially harmful to the placenta. And so my approach basically is that I don't leave a stone on 10 just to put it very simply, I have to explore all the potential conditions that can interfere with placenta formation and fetal development.

Dr. Kofinas (33:28):

Now chromosome defects. We identify them. They're all, measurable in fact, out of the 5% of the fetal losses, we have 3%, you know three fifth of my babies who I lose have chromosome anomalies. I cannot do anything about it. So I still lose 2% of genetically normal babies that might have had a, a cardiac defect that we did not identify because the baby was eight weeks at eight weeks. I can see only the consequences of heart failure, but I don't know what caused the heart failure. Right? There's a lot of things we don't know, but at least, you know, I know that 2% of my babies I lose and they're normal, and that bothers me. And I'm trying to minimize this number as much as I can. But if you don't mind, if you accept that 25%, if somebody accepts 25% of pregnancy loss has been a human thing, that's life, c'est la vie that's it.

Dr. Kofinas (34:24):

Okay. They go home and they split sleep at night and they don't bother. They don't ever wake up and wonder, you know, why do they miss this baby? Right. So the basic again, approach is that we look at all the pathology. If we have previous information, utilize it to guide our testing. If not, we do examine all the potential things that can affect the placenta, which is immune system and coagulated system. These are the basic two non-genetic things in the terms of, you know, they don't affect the baby directly, but they affect the environment in which the placenta is go, are to develop and they make the placenta be inefficiently inefficient, or totally fail in its formation and lead to a pregnancy failure, early stages. And the earliest failure of placenta development or placenta sufficiency is an IVF done with a genetically normal embryo that does not stick that's the ultimate placenta failure.

Dr. Kofinas (35:33):

And unless we see that, unless obstetrician sees that as such, we'll never be able to solve the problem and move the needle. And I, I don't know if you saw the link, I posted something on LinkedIn and some other media, you know, I mean the latest data show that fetal demise keeps going up. I mean, we spend billions of dollars every year to prevent this thing. Right, right. And we still have it worse than it because of course the, a lot of reasons for why it is worsening. But I think the quality of care we provide also is worsening. It's not, I cannot blame this onto all the mothers. Cause all the mothers are tended date by MFM specialists. Our job is to not lose of a woman who is 45 years old or 55 or 60. I mean, you can be claiming yourself a number fam and have the, all the accolades. And then, you know, when it comes to saving this baby, you say, oh, the mother was too old.

Lindsey Wimmer (36:36):

This is fascinating. And I know you've provided a lot of inspiration and, and good information and, and support for a lot of, a lot of our listeners. And I am so grateful for your time. I would encourage anyone listening to check out Dr. K's book, *the working womb*. He also has published extensively on his research, which is also just fascinating reading. So if you're interested in, in those papers, I encourage you to, to search those out as well. And I, I'm quite certain Dr. K, that



we will have you on in, in future episodes and continue this conversation, but thank you so much for the time. Thank you for the dedication and, and everything that you are doing to, to further our information and our knowledge and our care for, for women and their babies.

Dr. Kofinas ([37:25](#)):

Thank you, Lindsey. Thank you for having me on and I will be available. Certainly. I mean, this, this subject is so dear to my heart. It's been all my life basically. And I, I had equally, every time that I lose a baby, I, I stress it. I take it personally. I have that. I have that identity. I cannot disassociate myself from my patients and my babies, and I cannot see that this could be possible for a physician, at least not for me.

Lindsey Wimmer ([37:59](#)):

Well, that's, I'm sure that's only a small part of what, what makes you so good at what you do! So thank you so much for your dedication. Thank you. And thank you so much for listening to the Stillbirth Matters podcast.

Announcer ([38:12](#)):

That's all for this episode of the stillbirth matters podcast presented by the Star Legacy Foundation, contact us at info@starlegacyfoundation.org to share feedback request or suggest topics or guests for future podcast episodes.